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ABSTRACT

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THE CHANGING IMPACT OF MIGRATION ON THE POPULATION COMPOSITIONS OF ORIGIN AND DESTINATION METROPOLITAN AREAS

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The Changing Impact of Migration on the Population Compositions of Origin and Destination Metropolitan Areas

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ABSTRACT

Increased migration to the sunbelt and the metropolitan-nonmetropolitan "turnaround" represent departures from longstanding redistribution trends. Although these patterns have been examined from a number of perspectives, their consequences for individual metropolitan areas have not yet been brought to light. In the present study, stream-disaggregated data for the late 1950s and late 1960s are employed to assess the impact of recent migration for the sizes and compositions of white populations in 31 large metropolitan areas.

It is found that most large Northern SMSAs have been experiencing the "new" migration patterns since the late 1950s. They have incurred net out-movements of whites to both metropolitan and nonmetropolitan areas but, due to exchanges with nonmetropolitan areas, have managed to retain greater numbers of college graduates and professional workers. Although Southern and Western SMSAs had not yet sustained losses to their nonmetropolitan environs during this period, they did appear to gain substantially from the interregional metropolitan redistribution with respect to both their total and high status populations.

The Changing Impact of Migration on the Population Compositions of Origin and Destination Metropolitan Areas

Since well before the turn of the century, major cities in all regions of the country have served as foci for the nation's dominant redistribution pattern -- a continued concentration of the population within metropolitan areas. Historically, this concentration drew from a number of migratory sources: massive immigration from abroad, widespread rural-to-urban migration originating in the hinterlands of major cities, and the "filtering-up" of migrants from smaller to larger urban places. Older cities in the Northeast represented the initial destinations in the metropolitanization phenomenon (Speare, Goldstein, and Frey, 1975) and, as the concentration process gained momentum, urban centers evolved and continued to grow in all regions of the country (Taeuber, 1972). During the latter stages of this movement, individual metropolitan areas not only experienced continued increments in their overall population size but also became the recipients of a selective in-migrant population which, in comparison to nonmigrants at their origins, were generally younger and more highly educated (Hamilton, 1958).

Although this metropolitan concentration has continued right up through the 1960s, recent accounts in both the scholarly and popular literature have pointed up two significant changes in traditional migration patterns which, if continued, portend important consequences for the populations of individual metropolitan areas. The first of these is the appearance of a substantial regional differential in metropolitan growth. Older, Northern metropolitan areas have registered uncommonly low levels of net in-migration and, in some cases, net out-migration in the 1960s and early 1970s -- a stark contrast to their

experiences in earlier decades. At the same time, newer "sunbelt" metropolitan areas in the South and West have become the recipients of extremely high levels of net in-migration (Barabba, 1975). The continuation of such a regional differential implies that Northern metropolitan areas will undergo even further population declines. Moreover, if migration can be characterized as a "circulation of elites" as Taeuber and Taeuber (1964) suggest, the large and selective out-movement from these older metropolitan areas will leave behind a residual population that will be economically disadvantaged in comparison to those of the growing "sunbelt" SMSAs (standard metropolitan statistical areas).

The second, well-publicized change from past migration patterns is the metropolitan-nonmetropolitan "turnaround" wherein nonmetropolitan counties have increased their rates of population growth during the same period in which individual metropolitan areas have experienced growth declines and population losses (Beale, 1973; Morrison and Wheeler, 1976). Preliminary data for the 1970s show, in fact, that nonmetropolitan areas have registered a net in-migration vis. metropolitan areas for the nation as a whole (U.S. Bureau of the Census, 1975, 1977, 1978) and that this reversal can be attributed to both an increased out-migration from metropolitan areas and a greater retention of population within nonmetropolitan jurisdictions (Tucker, 1976). Although metropolitan-nonmetropolitan population exchanges have represented only a small component of the growth for metropolitan areas in recent decades, the impact of the "turnaround" for SMSA populations bears further examination.

Both of these new migration patterns have been brought to light and examined from various perspectives; however, no study has yet assessed the consequences that these changes are effecting on the sizes and popu-

lation compositions of individual metropolitan areas. The potential impact of these trends for metropolitan populations has already been speculated upon by urban scholars and policy analysts (Sternlieb and Hughes, 1975). They are particularly concerned with the consequences that the new redistribution patterns hold for older, Northern SMSAs and fear that somewhere down the road, a metropolitan-wide evacuation may occur that could parallel the central-city decline that has already taken place within these urban areas. In this vein, Sternlieb and Hughes write:

> The concept of the aging metropolis forces us to shift into a new mode of thinking; we have become inordinately accustomed to focusing on the tensions between central city and suburbia. However, if the early 1970s are not an aberration but a benchmark for a new reality, then we may have to adopt a new frame of reference: the distinctions and stresses between metropolitan areas and regions...[1975, p. 6].

To the extent that the regional gap in metropolitan migration patterns will not only continue but widen, and to the degree that the metropolitan-nonmetropolitan "turnaround" represents more than a passing mini-trend, it is important to determine the demographic impact that recent migration changes have exerted on single SMSAs in order to gain some sense of future developments that are likely to take place in these areas. The present analysis, therefore, employs stream-disaggregated migration data from the late 1950s and late 1960s to examine the redistribution consequences that the "new" migration patterns have been imposing on the white populations of the nation's largest metropolitan areas. The following questions are addressed:

1. How have recent movement patterns differentially affected the white populations of older, Northern SMSAs and the growing metropolitan areas in the sunbelt?

2. How has the metropolitan-nonmetropolitan "turnaround" affected the white populations of individual metropolitan areas?

In examining each question, we are not only concerned with contrasting the magnitudes of population change which recent migration patterns have effected on different metropolitan areas, but are interested also in uncovering the status selectivity processes which have accompanied these aggregate changes. The latter focus will allow us to ascertain the degree to which Taeuber and Taeuber's (1964) "circulation of elites" characterization of city-suburb redistribution might be uniformly applied to migration streams that contribute to metropolitan-wide population change. Should this be the case, SMSAs which have experienced large losses or gains as a result of recent redistribution patterns will have sustained even greater losses and gains within the ranks of their most skilled and highly educated subpopulations -- a finding which most urban specialists would view with some apprehension.

We have deliberately restricted this study to the white, rather than total populations of metropolitan areas. A focus on the latter would mask very different regional and metropolitan-nonmetropolitan migration patterns of whites and Blacks, and it is the white population which has participated most heavily in each of the new redistribution trends. Long-term patterns of Black interregional migration have also been subject to reversals (Long and Hansen, 1975, 1977; The New York Times, 1978); however, we feel that an examination of recent Black migration and metropolitan change warrants a separate investigation.

In using the most recent data available to perform a race- and class-specific stream-disaggregated analysis of migration to individual metropolitan areas (i.e., 1970 U.S. Census data),[1] our findings are already somewhat dated. Although regional differences in metropolitan growth and, to a lesser extent, the metropolitan-nonmetropolitan "turnaround" had

taken root prior to 1970, postcensal estimates and nationwide surveys tell us that both redistribution patterns have accelerated greatly since the most recent census date. Our analysis, therefore, serves to define the relative magnitudes and selectivities associated with these new migration trends during their initial stages and should form a basis of comparison for more updated findings which cannot be reported until well after the 1980 census is taken.

1. DATA AND METHODS

The data for this study are taken from the Mobility for Metropolitan Areas subject reports of the 1960 and 1970 U.S. Censuses (U.S. Bureau of the Census, 1963 and 1973) which provide migration tabulations for the 1955-60 and 1965-70 migration periods, respectively, based on individuals' reported residences 5 years prior to the time of census. For each census year, it is possible to classify residents of individual SMSAs according to the following beginning-of-period locations: (a) same metropolitan area; (b) different metropolitan area, and (c) nonmetropolitan area. Individuals who reported living in the SMSA at the beginning-of-period but outside the SMSA at the census date are also recorded, and classified according to their metropolitan or nonmetropolitan residence statuses at the time of the census. The tabulations provide detail on individuals' race, education, and occupation-employment statuses as reported in the census and are available for each SMSA over 250,000 in 1960 and over 500,000 in 1970. The present analysis is restricted to metropolitan areas which recorded 1970 populations of one million or greater and which were defined on the basis of the same central cities in both censuses (i.e., excluded according to this criteria were the Seattle-Everett and Annaheim-Santa Ana-Garden Grove SMSAs).

Using these tabulations, it is possible to disaggregate a metropolitan area's population into resident and migrant stream components so that each stream's contribution to the end-of-period SMSA population can be assessed. The technique to be employed is based on the following relationship:

$$P_i = N_i + I_m + I_n - O_m - O_n \qquad (1)$$

where:

P_i = end-of-period population ages 5 and over of $SMSA_i$

N_i = end-of-period population ages 5 and over of $SMSA_i$ that resided in the $SMSA_i$ at beginning-of-period

I_m = end-of-period population ages 5 and over of $SMSA_i$ that resided in other SMSAs at beginning-of-period

I_n = end-of-period population ages 5 and over of $SMSA_i$ that resided in a nonmetropolitan area at beginning-of-period

O_m = end-of-period residents ages 5 and over of other SMSAs that resided in $SMSA_i$ at beginning-of-period

O_n = end-of-period residents ages 5 and over of nonmetropolitan areas that resided in $SMSA_i$ at beginning-of-period

From this equation, we can estimate the end-of-period population ages 5 and over of the metropolitan area (i) that would have resulted if both the in- and out-migration stream had not taken place as:

$$N_i + O_m + O_n$$

and can compute, as follows, the percent change in that end-of-period population that can be attributed to:

$$\text{Total In-migration} = [(I_m + I_n)/(N_i + O_m + O_n)] \times 100 \qquad (2)$$

$$\text{Total Out-migration} = [(-O_m - O_n)/(N_i + O_m + O_n)] \times 100 \qquad (3)$$

Total Net migration	=	$[(I_m + I_n - O_m - O_n)/(N_i + O_m + O_n)] \times 100$	(4)
In-migration from nonmetropolitan areas	=	$[I_n /(N_i + O_m + O_n)] \times 100$	(5)
Out-migration to nonmetropolitan areas	=	$[-O_n /(N_i + O_m + O_n)] \times 100$	(6)
Net migration with nonmetropolitan areas	=	$[(I_n - O_n)/(N_i + O_m + O_n)] \times 100$	(7)
Net migration with other metropolitan areas	=	$[(I_m - O_m)/(N_i + O_m + O_n)] \times 100$	(8)

In the analysis that follows, measures (2) through (8) are computed for metropolitan white populations ages 5 and over, and for various population subclasses defined according to individuals' reported educational attainments and occupational statuses at the time of the census. Although we loosely refer to these measures as "rates" it should be recognized that their denominators are not coincident with the at-risk populations for migration rates as strictly defined (Shryock and Siegel, 1970; United Nations, 1973). We would prefer to interpret the measures as percentage contributions to an area's end-of-period population relative to that which would have resulted from the absence of any migration. Since these measures pertain only to individuals who are alive at both the beginning and end of the migration period, they do not take into account the impact that natural increase exerts on the metropolitan population.

Having described our measures, we are now obliged to enumerate some of the shortcomings inherent in the census data which impede an ideal calculation and interpretation of them. The first shortcoming relates to a fairly sizeable portion of metropolitan residents who have moved but for whom the Census Bureau could not identify the beginning-of-period

residence location. In the tabulations we are using, these individuals are grouped along with the small number of persons who reported a residence abroad at the beginning-of-period and, together, the two categories make up 3.4% of residents in an average 1960 SMSA and 7.2% of residents in an average 1970 SMSA. Previous scholars have elected to deal with this problem by deleting this category from the analysis entirely (Long and Hansen, 1975; Tucker, 1976) or by treating it as part of the nonmigrant category (Miller, 1967).

For the present analysis we have chosen to allocate individuals in this residual category by first, disaggregating an SMSA's population into race and age-specific subgroups; and second, allocating the residual category individuals within each subgroup according to the beginning-of-period residence distribution for persons in that subgroup who did report a beginning-of-period residence. Although this technique produces a superior estimate of in-migration than one which disregards the residual category entirely, published tabulations do not permit us to perform a parallel reallocation of out-migrants who resided in the SMSA at the beginning-of-period. The reader should bear in mind, therefore, that our estimates of out-migration are slightly understated, and our estimates of net-migration are slightly biased in a positive direction. (The interested reader may want to refer to Appendix Tables A and B which represent recomputations of rates in text Tables 1 and 3 based on data that have not been allocated.)

A second set of problems pertain to definitional incomparabilities between the two censuses. Subgroup definitions for race and occupation are not exactly coincident in the 1960 and 1970 reports. Although we refer throughout the text to the "white" population, the 1970 census data

permit only a Black-nonBlack distinction to be made. In 1960, occupation-employment status was reported for individuals 14 years of age and older, while the minimum reporting age in 1960 was 16 years old. A third incomparability arises because of changing metropolitan boundary definitions over the course of the decade. The migration data presented here pertain to SMSAs as they were defined at each census.

Finally, we might note that most of our measures pertain to the entire white (or nonBlack) population and do not allow us to exclude the institutional or military components. Although these subpopulations exert an influence on migration streams to and from all SMSAs, they are particularly important in shaping redistribution patterns in the San Diego and Washington, D.C. metropolitan areas.

2. REGIONAL DIFFERENCES IN METROPOLITAN MIGRATION

The regional redistribution of population out of the North and into the South and West is hardly a new phenomenon, as the latter two regions have accounted for a disproportionate share of the nation's growth since 1930 (Taeuber, 1972). What is new is the regional differential in metropolitan migration which has drawn population out of aging, Northern urban centers and into the newer, growing SMSAs of the sunbelt. Between 1900 and 1950, metropolitan growth outdistanced nonmetropolitan population increases within all four census regions. The 1950s saw metropolitan growth in the Northeast lag behind nonmetropolitan growth in that region for the first time, while urban concentration continued apace in the South and West. Now, net migration data for the 1960-75 period show plainly that regional disparities in metropolitan redistribution are intensifying and that the greatest net losses have been occurring among the white populations in the large metropolitan areas of the North (Taeuber, 1972; U.S. Bureau of the Census, 1977).

The list of explanations that have been brought forth to account for this metropolitan redistribution is long and varied. The changing geography of employment opportunities, the energy crisis, the "pushes" associated with living in a highly dense urban environment, and the "pulls" associated with the newer, amenity-laden cities have all been proposed as causal factors (Muller, 1975; Sternlieb and Hughes, 1977). Indeed, multivariate models of interlabor market migration now find quality of life and mean temperature indices to possess almost as much explanatory power as the more traditionally employed economic migration determinants (Greenwood, 1970; Cebula and Vedder, 1973; Hinze, 1977).

Although the regional parameters of this redistribution are well documented and major explanations have been proposed, somewhat less research has been concerned with relating these migration processes to the changing sizes and compositions of individual SMSAs (Morrison, 1977, is an example of one such study). The data in Table 1 provide some initial insights in this regard.

Presented here are the contributions to the end-of-period white populations for sixteen Northern (i.e., in the Northeast and North Central census regions) and fifteen Southern and Western SMSAs, that can be attributed to in-, out-, and net migration during the late 1950s and late 1960s. Perhaps the most striking aspect of these data is the strong regional contrast evident for each migration period. In both 1955-60 and 1965-70 the majority of Northern metropolitan areas experienced net out-migration while, at the same time, virtually all large SMSAs in the South and West reported net migration increases. An examination of the gross stream data in columns (3) through (6) reveals that a good bit of these differences in net migration levels across SMSAs can be accounted

TABLE 1: Contributions to End-of-period White Population ages 5 and above[1] that can be attributed to In, Out, and Net Migration for 1955-60 and 1965-70 periods, 31 SMSAs.

SMSAs	End-of-period Population in the absence of Migration (in 1000s)		Percent Change in End-of-period Population that can be attributed to:[2] In Migration		Out Migration		Net Migration	
	1955-60 (1)	1965-70 (2)	1955-60 (3)	1965-70 (4)	1955-60 (5)	1965-70 (6)	1955-60 (7)	1965-70 (8)
NORTH								
New York	8899	9413	+ 3.65	+ 4.05	- 7.54	- 8.71	- 3.89	- 4.66
Chicago	4800	5409	+ 8.52	+ 8.93	- 9.97	-11.32	- 1.45	- 2.39
Philadelphia	3264	3641	+ 7.92	+ 9.36	- 7.47	- 8.79	+ 0.45	+ 0.57
Detroit	2934	3228	+ 6.18	+ 7.45	-10.43	-10.46	- 4.25	- 2.51
Boston	2288	2431	+ 7.98	+11.02	- 9.97	-11.27	- 1.99	- 0.26
Pittsburgh	2068	2121	+ 5.35	+ 7.02	- 8.28	- 9.45	- 2.94	- 2.43
St. Louis	1581	1820	+ 9.90	+11.73	-11.18	-11.44	- 1.28	+ 0.29
Cleveland	1418	1628	+ 9.43	+ 9.87	-12.78	-12.12	- 3.35	- 2.25
Newark	1363	1431	+11.20	+13.43	-14.12	-15.79	- 2.92	- 2.35
Minneapolis*	1227	1566	+14.48	+15.78	-11.05	-12.53	+ 3.44	+ 3.24
Milwaukee	988	1216	+10.66	+ 9.23	- 9.69	-11.33	+ 0.97	- 2.10
Cincinnati	853	1123	+10.64	+11.43	-13.15	-11.31	- 2.51	+ 0.12
Paterson*	1001	1194	+15.22	+13.71	-12.62	-14.03	+ 2.60	- 0.32
Buffalo	1104	1174	+ 6.62	+ 6.48	- 8.80	- 9.32	- 2.17	- 2.84
Kansas City	822	997	+15.40	+17.12	-16.24	-15.64	- 0.84	+ 1.48
Indianapolis	534	877	+15.47	+14.38	-16.88	-13.25	- 1.41	+ 1.13
SOUTH AND WEST								
Los Angeles*	5043	5854	+20.47	+13.89	-11.54	-15.26	+ 8.94	- 1.37
San Francisco*	2122	2519	+19.49	+18.51	-15.94	-16.04	+ 3.56	+ 2.47
Washington, D.C.	1241	1790	+25.79	+29.69	-18.94	-19.35	+ 6.86	+10.34
Baltimore	1200	1437	+10.01	+12.14	-10.02	-10.77	- 0.01	+ 1.37
Houston	836	1311	+19.76	+24.77	-15.35	-13.64	+ 4.40	+11.13
Dallas	772	1069	+21.90	+27.71	-15.72	-16.29	+ 6.18	+11.42
Atlanta	658	890	+21.11	+27.77	-15.46	-17.07	+ 5.66	+10.69
San Diego	694	1022	+48.21	+38.48	-23.50	-21.49	+24.72	+16.99
Miami	614	913	+36.66	+27.85	-18.62	-16.74	+18.04	+11.11
Denver	704	990	+29.15	+27.49	-17.91	-18.72	+11.23	+ 8.77
San Bernadino*	567	902	+40.60	+32.30	-20.45	-21.48	+20.15	+10.82
San Jose	401	845	+52.92	+31.07	-17.84	-18.61	+35.09	+12.47
New Orleans	531	662	+12.73	+14.53	-12.44	-14.40	+ 0.29	+ 0.13
Tampa*	455	708	+52.70	+35.60	-15.41	-15.80	+37.29	+19.80
Portland	706	834	+16.48	+21.79	-14.97	-13.11	+ 1.51	+ 8.68

* Indicates largest city of multiple SMSA.

[1] In this and subsequent tables, data for the 1955-60 period refer to the white population while data for the 1965-70 period refer to the nonBlack population.

[2] These measures reflect percent changes relative to the end-of-period population that would have resulted if no in or out migration had taken place [columns (1) and (2)].

Sources: U.S. Bureau of the Census, 1963. Census of Population 1960 PC(2)-2C.
U.S. Bureau of the Census, 1973. Census of Population 1970 PC(2)-2C.

for by their in-migration components and suggests that an SMSA's "pulling" power is crucial to its migratory growth.

A most surprising finding here is the fairly consistent pattern of net white out-migration registered by many Northern SMSAs during both migration periods (mean net migration levels for the 16 SMSAs are -1.34 in 1955-60 and -0.96 in 1965-70). Moreover, the levels of decline for individual SMSAs have not changed dramatically between periods. This suggests that the relatively sharp dip in population growth that has been reported for Northern SMSAs between the 1950s and 1960s (Taeuber, 1972) may actually have occurred in the early part of the 1950-60 decade, and that the onset of white out-movement from these metropolitan areas could have begun well before the 1960 census.

In contrast to Northern metropolitan areas, sunbelt SMSAs vary markedly with respect to levels of migration and changes in those levels over time. At one extreme stand the older Southern SMSAs of Baltimore and New Orleans whose low levels of net movement are more coincident with Northern patterns. At the other extreme we find 10 metropolitan areas in which net migration accounted for 10% or more of their end-of-period population sizes in one or both of the 5-year migration periods. In each of these instances, gross in-migration represented at least 25% of the SMSA's end-of-period population. Three SMSAs that are continually cited as sunbelt growth centers -- Houston, Dallas, and Atlanta -- displayed major gains in the latter 5-year interval. For 6 other fast growing areas -- San Diego, Miami, Denver, San Bernadino, San Jose, and Tampa -- net migration in the late 1960s contributed to a deceleration in growth. In each case, shifting levels of in-migration accounted for the bulk of the net migration change.

We turn now to the question which is of most interest to urban analysts --- **To what extent are these overall redistribution** processes mirrored, or perhaps even magnified for the most skilled and highly educated segments of the metropolitan population? In addressing this issue, we employ as a working hypothesis the "circulation of elites" model of population redistribution. This term was appropriated by Taeuber and Taeuber (1964, p. 728) **to characterize a selective redistribution** process wherein: (a) the status compositions of an area's in- and out-migration streams are similar; (b) the migration streams, relative to the area's nonmigrant population, are disproportionately composed of high status individuals; and (c) the impact of redistribution on the area's population composition is dependent on the relative volumes rather than the relative compositions of its in- and out-migration streams. While this description tends to oversimplify the results of Taeuber and Taeuber's careful analysis, the "circulation of elites" model implies that net in-migration areas will experience disproportionate increases within the most skilled, high status segments of their populations. Out-migration areas, however, will tend to suffer disproportionate losses within their most select substrata.

In order to investigate the selectivity processes which have been taking place among large metropolitan areas, we focus on the status-specific migration patterns of five SMSAs -- Chicago, Pittsburgh, Buffalo, Dallas, and Atlanta. The first three of these registered net out-migration in both the late 1950s and late 1960s while the latter, sunbelt SMSAs experienced increasing levels of growth due to net migration. The migration measures reported in Table 2 pertain to subclasses of each metropolitan area's population defined on the basis of broad educational

TABLE 2: Contributions to End-of-Period White Population by Classes of Education and Occupation that can be attributed to In, Out, and Net Migration for 1955-60 and 1965-70 periods, Selected SMSAs.

SMSAs/ Education and Occupation Classes	End-of-period Population in the absence of Migration(in 1000s)		Percent Change in End-of-period Population that can be attributed to: In Migration		Out Migration		Net Migration	
	1955-60 (1)	1965-70 (2)	1955-60 (3)	1965-70 (4)	1955-60 (5)	1965-70 (6)	1955-60 (7)	1965-70 (8)
EDUCATION CLASSES FOR END-OF-PERIOD WHITE POPULATION AGES 25 and OVER								
Chicago								
College Graduate	288	416	+17.82	+20.66	-18.97	-19.22	- 1.15	+ 1.44
H.S. Graduate	1125	1454	+ 7.91	+ 7.40	-10.35	-10.05	- 2.44	- 2.65
Not H.S. Graduate	1790	1462	+ 4.51	+ 3.38	- 6.25	- 6.54	- 1.74	- 3.17
Pittsburgh								
College Graduate	101	133	+17.07	+19.63	-19.20	-20.89	- 2.13	- 1.26
H.S. Graduate	465	585	+ 5.92	+ 6.41	- 8.44	- 7.76	- 2.52	- 1.35
Not H.S. Graduate	782	596	+ 2.53	+ 2.38	- 4.26	- 3.68	- 1.73	- 1.30
Buffalo								
College Graduate	53	73	+17.41	+16.99	-19.71	-21.51	- 2.30	- 4.52
H.S. Graduate	229	298	+ 7.72	+ 5.62	-10.27	- 8.33	- 2.55	- 2.71
Not H.S. Graduate	436	338	+ 3.42	+ 2.38	- 4.62	- 3.72	- 1.20	- 1.35
Dallas								
College Graduate	53	91	+36.22	+41.52	-23.80	-23.31	+12.42	+18.20
H.S. Graduate	198	270	+20.21	+26.87	-14.93	-15.68	+ 5.28	+11.18
Not H.S. Graduate	240	282	+13.16	+14.43	-10.65	- 9.27	+ 2.51	+ 5.17
Atlanta								
College Graduate	46	79	+32.10	+44.92	-25.22	-25.13	+ 6.88	+19.79
H.S. Graduate	162	223	+21.10	+27.84	-15.82	-16.94	+ 5.28	+10.90
Not H.S. Graduate	206	235	+12.47	+12.30	-10.07	- 9.82	+ 2.40	+ 2.49
OCCUPATION CLASSES FOR WHITE EMPLOYED CIVILIAN MALES IN END-OF-PERIOD POPULATION[1]								
Chicago								
Professionals	191	244	+15.06	+19.15	-15.52	-16.13	- 0.47	+ 3.02
Other White Collar	452	455	+ 8.59	+10.98	- 9.00	-10.60	- 0.40	+ 0.38
Blue Collar	810	820	+ 7.77	+ 5.98	- 5.59	- 6.79	+ 2.18	- 0.81
Pittsburgh								
Professionals	66	85	+15.51	+19.43	-16.72	-18.89	- 1.21	+ 0.53
Other White Collar	146	139	+ 7.03	+ 9.64	- 9.12	-11.63	- 2.09	- 1.99
Blue Collar	359	325	+ 3.13	+ 4.27	- 4.86	- 4.81	- 1.73	- 0.54
Buffalo								
Professionals	37	45	+15.57	+16.33	-17.90	-19.64	- 2.33	- 3.31
Other White Collar	81	76	+ 7.44	+ 8.55	- 9.32	-11.16	- 1.87	- 2.61
Blue Collar	195	186	+ 5.27	+ 3.97	- 5.04	- 4.65	+ 0.22	- 0.68
Dallas								
Professionals	30	49	+41.22	+50.02	-23.88	-22.47	+17.34	+27.54
Other White Collar	85	107	+23.50	+29.76	-13.89	-15.42	+ 9.61	+14.34
Blue Collar	113	146	+19.02	+25.03	-11.83	-12.07	+ 7.19	+12.96
Atlanta								
Professionals	26	42	+32.41	+44.87	-24.26	-23.68	+ 8.16	+21.19
Other White Collar	74	94	+23.36	+33.14	-14.41	-15.56	+ 8.93	+17.58
Blue Collar	88	116	+17.79	+21.37	-10.74	-12.91	+ 7.05	+ 8.46

and occupational categories. This permits us to evaluate in-, out-, and net migration contributions to different status strata of the SMSA population.

In examining gross migration measures [columns 3 through 6] across status categories, a fairly consistent pattern emerges: both in- and out-migration streams effect greatest gains and losses on the most select population classes of each SMSA. Yet, these consistencies become more clouded when the net migration measures are assessed in columns (7) and (8). The growing, sunbelt SMSAs -- Dallas and Atlanta -- exhibit patterns which might be expected under a "circulation of elite" redistribution of migrants. For each SMSA, highest rates of net in-migration occur among the college graduate and professional subgroupings. Moreover, both of these "elite" categories experience greatest increases in net migration levels between the late 1950s and late 1960s. Indeed, even Buffalo -- a net out-migration SMSA for both periods -- tends to conform to the model. Its high status subgroups (with the exception of 1950 college graduates) lead other subgroups in population losses brought about by net migration. The remaining Northern SMSAs, however, are not at all consistent with the "elite" model. In Pittsburgh, the middle education and occupation categories display greatest losses in most comparisons while for Chicago -- another out-migration SMSA -- significant net in-migration is seen among college graduates and professionals during the 1965-70 migration period.

In short, our data seem to suggest that in-migration SMSAs experience disproportionate increases among their upper status substrata, while out-migration metropolitan areas display a less clear-cut pattern of status-specific losses. To provide a broader test of this assertion, we

pooled together observations for the 31 SMSAs at both migration periods (62 observations) and found 38 instances wherein SMSAs experienced net in-migration and 24 instances wherein net out-migration was sustained. Of the 38 in-migration SMSAs, 37 experienced in-migration within their professional populations, and 34 experienced in-migration within their college graduate populations. Of the 24 out-migration SMSAs, only 8 experienced out-migration among their professional subclasses, and only 10 experienced out-migration among their college graduate populations.

These findings should represent good news to those who fear that older, declining SMSAs are losing disproportionate numbers from their most skilled, highly educated subpopulations. Nevertheless, they are problematic to the analyst who is trying to assess why both growing and declining SMSAs are experiencing gains among their high status populations. One possible answer is that all of these areas attract upper status migrants from their nonmetropolitan environs. This possibility will be examined further in the next section.

3. METROPOLITAN CONSEQUENCES OF "THE TURNAROUND"

Demographers, rural sociologists, and the public at large have maintained a curious fascination with the metropolitan-nonmetropolitan "turnaround" ever since Beale (1975) called our attention to the fact that nonmetropolitan areas were growing faster than SMSA populations in the early 1970s. Although metropolitan growth in the Northeast region has been lagging behind that of its nonmetropolitan environs since 1950, the "newness" of the turnaround seems to be associated with its nationwide pervasiveness and with the substantial impact it has been effecting on nonmetropolitan county populations. By assembling migration data over the 1950-75 period, Beale and Fuguitt (1976) have demonstrated that

nonmetropolitan areas in all parts of the country have experienced an orderly progression from net out-migration toward net in-migration. Despite the pervasiveness of this pattern among nonmetropolitan areas, it is likely that the major metropolitan "donor areas" are more localized in terms of region and size, and that the metropolitan consequences of the turnaround will be disproportionately borne by large SMSAs in the North.

The task of isolating the impact of the turnaround for specific metropolitan areas is not straightforward since conventionally reported SMSA net migration rates (U.S. Bureau of the Census, 1971) take into account both migration with nonmetropolitan areas and migration with other metropolitan areas. The data which we employ here, however, allow us to identify the metropolitan or nonmetropolitan origins/destinations of gross migration streams which contribute to the total net migration level. In the following discussion, we shall examine the consequences that nonmetropolitan-metropolitan exchanges have imposed on the sizes and status compositions of our 31 SMSAs during the late 1950s and late 1960s. Further, we will contrast these with the migration effects brought about by intermetropolitan exchanges in order to add some refinement to our earlier analysis of net migration levels.

Consequences for Population Size

Presented in the first six columns of Table 3 are the in-, out-, and net migration contributions to each SMSA's end-of-period white population based on its exchange with nonmetropolitan areas. It is apparent from columns (5) and (6) that the regional differences in total net migration patterns (discussed earlier) tend to be present here as well. According to these data, the white populations of 9 Northern metropolitan areas had already experienced net out-flows

TABLE 3: Contributions to End-of-period White Population ages 5 and above that can be attributed to In, Out, and Net Migration with Nonmetropolitan Areas and to Net Migration with other Metropolitan Areas for 1955-60 and 1965-70 periods, 31 SMSAs.

SMSAs	Percent Change in End-of-period Population that can be attributed to: [1] In Migration from Non-Met Areas		Out Migration to Non-Met Areas		Net Migration with Non-Met Areas		Net Migration with Other Met Areas	
	1955-60 (1)	1965-70 (2)	1955-60 (3)	1965-70 (4)	1955-60 (5)	1965-70 (6)	1955-60 (7)	1965-70 (8)
NORTH								
New York	+ 0.93	+ 0.93	- 1.97	- 2.41	- 1.04	- 1.49	- 2.85	- 3.17
Chicago	+ 3.65	+ 2.67	- 3.15	- 3.67	+ 0.49	- 1.00	- 1.94	- 1.39
Philadelphia	+ 2.28	+ 2.24	- 2.03	- 2.21	+ 0.24	+ 0.02	+ 0.21	+ 0.54
Detroit	+ 2.52	+ 2.48	- 3.82	- 3.79	- 1.30	- 1.30	- 2.95	- 1.20
Boston	+ 2.62	- 3.25	- 3.13	- 3.43	- 0.51	- 0.19	- 1.49	- 0.07
Pittsburgh	+ 2.23	+ 2.47	- 2.96	- 3.03	- 0.73	- 0.56	- 2.20	- 1.87
St. Louis	+ 5.37	+ 4.92	- 4.92	- 4.67	+ 0.46	+ 0.25	- 1.74	+ 0.04
Cleveland	+ 3.83	+ 2.52	- 4.54	- 2.98	- 0.71	- 0.46	- 2.64	- 1.79
Newark	+ 2.43	+ 2.88	- 6.74	- 7.03	- 4.31	- 4.14	+ 1.40	+ 1.79
Minneapolis*	+ 9.14	+ 8.58	- 4.94	- 5.78	+ 4.20	+ 2.80	- 0.76	+ 0.45
Milwaukee	+ 5.53	+ 3.42	- 3.88	- 3.96	+ 1.65	- 0.54	- 0.67	- 1.56
Cincinnati	+ 5.28	+ 3.71	- 5.92	- 3.30	- 0.64	+ 0.42	- 1.87	- 0.29
Paterson*	+ 1.33	+ 1.42	- 3.34	- 4.08	- 2.00	- 2.65	+ 4.61	+ 2.33
Buffalo	+ 3.08	+ 1.92	- 2.92	- 2.74	+ 0.17	- 0.82	- 2.34	- 2.02
Kansas City	+ 8.69	+ 8.00	- 7.42	- 6.79	+ 1.27	+ 1.21	- 2.11	+ 0.27
Indianapolis	+ 9.01	+ 6.23	- 9.11	- 4.88	- 0.10	+ 1.34	- 1.31	- 0.22
SOUTH AND WEST								
Los Angeles*	+ 5.99	+ 2.54	- 3.29	- 2.62	+ 2.70	- 0.09	+ 6.23	- 1.28
San Francisco*	+ 6.46	+ 3.62	- 5.17	- 3.53	+ 1.29	+ 0.10	+ 2.27	+ 2.38
Washington,D.C.	+ 9.42	+ 8.30	- 6.06	- 5.95	+ 3.35	+ 2.35	+ 3.51	+ 7.99
Baltimore	+ 4.01	+ 3.15	- 3.25	- 3.03	+ 0.76	+ 0.12	- 0.77	+ 1.25
Houston	+ 8.95	+ 7.81	- 6.05	- 4.87	+ 2.89	+ 2.94	+ 1.51	+ 8.18
Dallas	+ 9.52	+ 8.46	- 5.15	- 5.13	+ 4.37	+ 3.33	+ 1.81	+ 8.09
Atlanta	+10.65	+10.17	- 6.89	- 8.23	+ 3.77	+ 1.94	+ 1.89	+ 8.76
San Diego	+15.20	+ 8.45	- 6.50	- 4.77	+ 8.70	+ 3.68	+16.02	+13.31
Miami	+ 7.84	+ 4.93	- 5.46	- 3.99	+ 2.37	+ 0.95	+15.66	+10.16
Denver	+14.07	+10.81	- 6.86	- 7.12	+ 7.20	+ 3.69	+ 4.03	+ 5.08
San Bernadino*	+11.13	+ 5.99	- 5.70	- 4.89	+ 5.43	+ 1.10	+14.72	+ 9.72
San Jose	+13.83	+ 5.59	- 5.55	- 4.45	+ 8.28	+ 1.14	+26.81	+11.33
New Orleans	+ 5.71	+ 5.29	- 5.56	- 4.71	+ 0.15	+ 0.58	+ 0.14	- 0.45
Tampa*	+17.98	+10.56	- 6.93	- 6.12	+11.05	+ 4.44	+26.25	+15.36
Portland	+ 9.60	+ 9.12	- 6.86	- 5.34	+ 2.74	+ 3.78	- 1.23	+ 4.90

* Indicates largest city of multiple SMSA.

[1] These measures reflect percent changes relative to the end-of-period population that would have resulted if no in or out migration had taken place [columns (1) and (2) in Table 1].

Sources: Same as Table 1.

to nonmetropolitan areas in the late 1950s, and 10 of the 16 SMSAs in the region registered this negative exchange in the late 1960s. Only one Northern SMSA, Minneapolis-St. Paul, recorded significant net in-migration with nonmetropolitan areas during both migration periods--a consequence, perhaps, of its vast nonmetropolitan hinterland. In contrast to the Northern exchanges during these periods, all large SMSAs in the South and West save one (Los Angeles) experienced net in-migration vis. nonmetropolitan areas. These gains were most substantial in SMSAs whose total net in-migration levels were large.

Although regional differentials in total net migration tend to hold for the metropolitan-nonmetropolitan exchange, the data indicate that a "turnaround" has begun to take place in both Northern and sunbelt SMSAs between the late 1950s and 1960s. In 9 of the 16 Northern metropolitan areas and in 12 of the 15 Southern and Western SMSAs, the metropolitan-nonmetropolitan exchange has become less favorable to metropolitan populations. Moreover, an examination of gross migration levels (columns [1] through [4]) reveals that most of these changes have resulted from in-migration decreases rather than from out-migration increases.

For purposes of comparison, we present in columns (7) and (8) net migration rates which measure the consequences of each SMSA's exchange with other SMSAs. It comes as no surprise to find that these intermetropolitan exchange measures fall in the same directions as the total net migration measures (in Table 1) and the metropolitan-nonmetropolitan exchange measures (in columns [5] and [6]) for most SMSAs, and that among

them, the usual regional differentials exist. Despite these similarities in direction, there is wide variation both across metropolitan areas and over time in the relative contributions made by inter-SMSA and metropolitan-nonmetropolitan exhanges. In Northern SMSAs, where the magnitudes of both these exchanges are fairly modest, the mean 1955-60 level of net migration with other metropolitan areas was -1.17% while the corresponding mean for the metro-nonmetro exchange was -.18%. (During this period net in-migration from nonmetropolitan areas countered a larger net out-flow to other metropolitan areas in six SMSAs.) As the turnaround set in over the late 1960s, however, mean net migration with nonmetropolitan areas fell to -.45% while the mean exchange with other metropolitan areas accounted for -.51% of the end-of-period population.

An evaluation of corresponding measures for the South and West reveal contrasting patterns for the two migration periods. In the late 1950s, before large interregional streams started flowing into many sunbelt areas, net-migration with nonmetropolitan areas accounted for most of the net gains in Houston, Dallas, Atlanta, Denver, and Portland. Mean contributions to end-of-period population size for all Southern and Western SMSAs during this period were +4.34% due to migration with nonmetropolitan areas, and +7.92% due to migration with other metropolitan areas. In the late 1960s, contributions from nonmetropolitan areas were diminished while inter-metropolitan in-flows continued apace. During this period, net exchanges with other metropolitan areas accounted for, on the average, +6.98% of the end-of-period SMSA population while the corresponding contribution from exchanges with nonmetropolitan areas fell to +2.00. In sum, these data point up the declining importance of the metropolitan-

nonmetropolitan exchange for metropolitan growth in all regions. This decline. however, is likely to impose the most severe consequences in large Northern SMSAs which are also losing population to other metropolitan areas.

Consequences for Population Composition

Let us return now to the issue of status selectivity so that we might examine, first, the consequences that the metropolitan-nonmetropolitan exchanges have effected on the status compositions of individual SMSAs, and second, the degree to which these selectivity processes differ from those of intermetropolitan migration exchanges.

Upon finding, above, that both growing and declining SMSAs sustained net in-migration among their most select subpopulations, we suggested that perhaps nonmetropolitan areas were the sources of such gains. Indeed this is not inconsistent with the traditional view of the rural-urban migration process wherein urban-bound migrants were seen to be more positively selected than the stream of "return" or "failed" migrants heading in the reverse direction. Present-day migration between metropolitan and nonmetropolitan areas may not entirely conform to this stereotype, however, the amenities and employment opportunities in each type of area are selective with regard to the "pulls" they exert upon movers at different status levels (Kirschenbaum, 1971; Beale, 1975). Recent studies confirm that urban- and metropolitan-bound migrants are still positively selected (Bacon, 1971; Kirschenbaum, 1972) however evidence is more mixed with respect to the status selectivity of migration in the reverse direction (Morrison and Wheeler, 1976; DeJong and Humphrey, 1976).

To gain some sense of how metropolitan-nonmetropolitan exchanges have been affecting the class compositions of individual SMSAs, we focus again on Chicago, Pittsburgh, Buffalo, Dallas, and Atlanta. While Chicago and Buffalo experienced negligible levels of net in-migration with nonmetropolitan areas in the 1955-60 period, all three Northern SMSAs registered declines in this exchange for 1965-70. The two sunbelt SMSAs sustained net in-migration viz. nonmetropolitan areas over both periods although at lesser levels in 1965-70. The measures in the first six columns of Table 4 permit us to assess the impact that in-, out-, and net migration with nonmetropolitan areas exerted on various education and occupation categories of each SMSA's end-of-period population.

According to columns (1) through (4), both in-migration from nonmetropolitan areas and out-migration to nonmetropolitan areas occur more frequently among college graduates and professionals than among the other education and occupation categories. These patterns are similar to those observed for total gross streams, (Table 2), however, it is necessary to examine the net migration measures (columns [5] and [6]) to evalute their aggregate impact for each status category. In so doing, we find support for our assertion that the traditional rural-to-urban selectivity pattern is, to some extent, still operating and that metropolitan areas tend to import more high status migrants than they lose in their exchange with nonmetropolitan areas.

The evidence here is most convincing for Chicago, Pittsburgh, and Buffalo--SMSAs which experienced net out-migration with nonmetropolitan

TABLE 4: Contributions to End-of-period White Population by Classes of Education and Occupation that can be attributed to In, Out, and Net Migration with Nonmetropolitan Areas, and to Net Migration with other Metropolitan Areas for 1955-60 and 1965-70 periods, Selected SMSAs.

SMSAs/ Education and Occupation Classes	Percent Change in End-of-period Population that can be attributed to: In Migration from Non-Met Areas		Out Migration to Non-Met Areas		Net Migration with Non-Met Areas		Net Migration with Other Met Areas	
	1955-60 (1)	1965-70 (2)	1955-60 (3)	1965-70 (4)	1955-60 (5)	1965-70 (6)	1955-60 (7)	1965-70 (8)
EDUCATION CLASSES FOR END-OF-PERIOD WHITE POPULATION AGES 25 and OVER								
Chicago								
College Graduate	+ 5.28	+ 5.00	-4.27	-4.03	+1.02	+0.96	-2.16	- 0.48
H.S. Graduate	+ 2.70	+ 1.97	-2.74	-2.93	-0.03	-0.96	-2.40	- 1.69
Not H.S. Graduate	+ 2.24	+ 1.26	-2.36	-2.69	-0.12	-1.43	-1.62	- 1.74
Pittsburgh								
College Graduate	+ 5.59	+ 6.08	-4.79	-4.35	+0.80	+1.76	-2.93	- 2.99
H.S. Graduate	+ 2.28	+ 2.12	-2.64	-2.27	-0.36	-0.16	-2.16	- 1.19
Not H.S. Graduate	+ 1.28	+ 0.95	-1.61	-1.39	-0.33	-0.44	-1.40	- 0.86
Buffalo								
College Graduate	+ 6.00	+ 4.12	-4.92	-4.33	+1.08	-0.21	-3.39	- 4.31
H.S. Graduate	+ 3.19	+ 1.65	-3.03	-2.34	+0.16	-0.69	-2.71	- 2.02
Not H.S. Graduate	+ 1.84	+ 0.87	-1.77	-1.34	+0.07	-0.47	-1.27	- 0.88
Dallas								
College Graduate	+11.69	+ 9.60	-6.17	-4.70	+5.52	+4.91	-6.90	-13.30
H.S. Graduate	+ 6.94	+ 6.94	-4.18	-4.50	+2.76	+2.43	-2.52	- 6.75
Not H.S. Graduate	+ 6.43	+ 5.56	-4.41	-4.30	+2.02	+1.27	-0.49	- 3.90
Atlanta								
College Graduate	+11.64	+13.65	-7.83	-7.92	+3.81	+5.73	+3.07	-14.06
H.S. Graduate	+ 8.23	+ 8.26	-5.76	-7.46	+2.46	+0.80	+2.82	-10.11
Not H.S. Graduate	+ 7.36	+ 5.61	-5.93	-6.59	+1.43	-0.98	+0.97	- 3.47
OCCUPATION CLASSES FOR WHITE EMPLOYED CIVILIAN MALES IN END-OF-PERIOD POPULATION								
Chicago								
Professionals	+ 5.16	+ 5.72	-3.70	-3.64	+1.46	+2.08	-1.93	+ 0.94
Other White Collar	+ 2.81	+ 2.69	-1.87	-2.09	+0.94	+0.60	-1.34	- 0.22
Blue Collar	+ 4.31	+ 2.32	-2.02	-2.69	+2.29	-0.37	-0.11	- 0.43
Pittsburgh								
Professionals	+ 5.60	+ 6.69	-4.88	-4.70	+0.72	+1.99	-1.93	- 1.46
Other White Collar	+ 2.29	+ 2.97	-2.07	-2.48	+0.23	+0.49	-2.32	- 2.46
Blue Collar	+ 1.69	+ 1.86	-1.87	-1.88	-0.18	-0.02	-1.55	- 0.32
Buffalo								
Professionals	+ 6.21	+ 4.31	-4.57	-4.21	+1.63	+0.09	-3.86	- 3.40
Other White Collar	+ 2.42	+ 2.16	-2.06	-2.18	+0.41	-0.01	-2.28	- 2.60
Blue Collar	+ 3.06	+ 1.56	-1.85	-1.73	+1.21	-0.16	-0.99	- 0.32
Dallas								
Professionals	+15.36	+13.42	-6.79	-5.02	+8.57	+8.41	-8.77	-19.14
Other White Collar	+ 8.40	+ 7.15	-3.12	-3.04	+5.27	+4.12	-4.33	-10.22
Blue Collar	+10.26	+ 9.86	-4.66	-4.99	+5.60	+4.87	-1.59	- 8.09
Atlanta								
Professionals	+13.56	+15.83	-8.60	-8.73	+4.97	-7.10	-3.19	+14.08
Other White Collar	+ 9.54	+10.27	-4.48	-5.68	+5.06	-4.59	-3.87	-12.44
Blue Collar	+11.73	+10.27	-6.12	-8.39	-5.61	-1.98	-1.44	+ 8.31

Sources: Same as Table 1.

areas. In each case, their upper status populations experienced net in-migration (or less net out-migration than other status categories) in exchange with nonmetropolitan areas. In examining how often this pattern occurred among SMSAs over both migration periods, we found that of the 20 SMSAs that sustained net out-movement with nonmetropolitan areas only 7 recorded net out-movement among their college graduate populations, and only 8 registered out-movement among their professional populations. Also, these out-movement levels were generally more reduced than those shown for the total SMSA.

Let us now shift our attention to the selectivity consequences that SMSAs experience as a result of net migration with other metropolitan areas. The status-specific migration patterns associated with this exchange (columns [7] and [8]) stand very much in contrast with those just observed and, in fact, conform to those expected under the "circulation of elites" model. As has generally been the case, the "net in-migration" SMSAs--Dallas and Atlanta--tend to experience greatest gains among their most select population subgroups. However, unlike the patterns observed in columns (5) and (6), the population losses among the "net out-migration" SMSAs--Chicago, Pittsburgh, and Buffalo--are magnified among college graduates and professionals (Chicago, in 1965-70, being an exception). While these patterns are not uniform among all metropolitan areas, our data for both growing and declining SMSAs indicate that the "circulation of elite" model represents a fair characterization of the intermetropolitan net migration exchange.[2]

In short, these observations suggest that the total net migration to an SMSA masks two very different selectivity processes: (1) an exchange

with nonmetropolitan areas that is generally associated with a net in-migration of the most skilled and highly educated substrata and (2) an exchange with other metropolitan areas which more closely conforms to a "circulation of elites." Because both of these exchanges disproportionately filter upper status individuals into "net in-migration" SMSAs, it is well understood why growing, sunbelt metropolitan areas are receiving large gains within the ranks of their college graduate and professional populations. "Net out-migration" SMSAs, however, do not lose heavily from these ranks because the net losses they incur to other metropolitan areas are recouped from their exchanges with nonmetropolitan areas.

The mean net migration measures in Table 5 provide further elaboration on this point. During the 1950s and 1960s, the total population of Northern SMSAs incurred moderate levels of net out-migration while, at the same time, their college graduate and professional populations registered mean in-migration levels of somewhat larger magnitude. The total migration losses were brought about by both out-migration to other SMSAs and out-migration to nonmetropolitan areas. Yet the higher net gains of SMSA "elite" populations can be attributed, in large measure, to the metropolitan-nonmetropolitan exchange.

These results allow us to refine our earlier observation that Northern SMSAs--by virtue of their net out-movement to both metropolitan and nonmetropolitan areas--may expect to experience adverse consequences from an accelerated "turnaround." If the changes between 1955-60 and 1965-70 are indicative of future patterns, it is likely that the turn-

TABLE 5: Mean Contributions to End-of-period White SMSA Populations that can be attributed to Total Net Migration, Net Migration with Nonmetropolitan Areas and Net Migration with other Metropolitan Areas, for selected population classes, 1955-60 and 1965-70 periods.

SMSA Groupings/ Population Classes [1]	Percent Change in End-of-period Population that can be attributed to: 1955-60 Net Migration			1965-70 Net Migration		
	Total (1)	With Nonmet Areas (2)	With other Met Areas (3)	Total (4)	With Nonmet Areas (5)	With other Met Areas (6)
SMSAs from all Regions (N=31)						
Total						
Mean	+5.24	+2.01	+3.23	+3.86	+0.74	+3.12
(Std Dev)	(10.92)	(3.41)	(8.10)	(6.66)	(1.99)	(5.18)
College Graduates						
Mean	+7.98	+2.97	+5.01	+7.72	+2.39	+5.33
(Std Dev)	(11.59)	(2.98)	(9.26)	(8.37)	(2.55)	(6.86)
Professionals						
Mean	+9.12	+3.75	+5.37	+8.23	+3.01	+5.22
(Std Dev)	(14.54)	(3.72)	(11.56)	(8.56)	(3.13)	(6.59)
SMSAs from the North (N=16)						
Total						
Mean	-1.34	- .18	-1.17	-0.96	-0.45	-0.51
(Std Dev)	(2.22)	(1.81)	(1.92)	(2.04)	(1.61)	(1.46)
College Graduates						
Mean	+1.58	+1.34	+0.24	+1.94	+1.25	+0.69
(Std Dev)	(3.39)	(1.78)	(3.65)	(3.54)	(2.60)	(3.17)
Professionals						
Mean	+1.76	+1.78	-0.02	+3.55	+2.03	+1.52
(Std Dev)	(3.01)	(2.35)	(3.37)	(4.17)	(3.12)	(3.12)
SMSAs from the South and West (N=15)						
Total						
Mean	+12.26	+4.34	+7.92	+8.98	+2.00	+6.98
(Std Dev)	(12.15)	(3.17)	(9.52)	(5.99)	(1.55)	(4.92)
College Graduates						
Mean	+14.80	+4.69	+10.11	+13.88	+3.60	+10.28
(Std Dev)	(13.36)	(3.08)	(10.74)	(7.61)	(1.92)	(6.29)
Professionals						
Mean	+16.98	+5.86	+11.12	+13.22	+4.06	+9.17
(Std Dev)	(17.76)	(3.81)	(14.34)	(9.35)	(2.87)	(7.09)

[1] Total Population pertains to end-of-period whites ages 5 and above; College Graduates and Professionals are defined as in Tables 2 and 4.

Sources: Same as Table 1.

around will not have a uniform impact on all status levels and that Northern SMSAs will continue to experience gains in their select subpopulations as a result of exchanges with nonmetropolitan areas. An accelerated turnaround is less threatening to the continued growth of Southern and Western SMSAs. However, the data in Table 5 suggest that among these as well, a diminution of overall in-migration from nonmetropolitan areas will pose less severe consequences among professionals and the college-educated.

In order to further demonstrate the one-sided attraction that metropolitan areas hold for well-educated and highly skilled individuals, we have computed metropolitan migration efficiency ratios for the various migration exchanges. These ratios are computed as:

$$\frac{(\text{Inmigrants to SMSA} - \text{Outmigrants from SMSA})}{(\text{Inmigrants to SMSA} + \text{Outmigrants from SMSA})} \times 100$$

They indicate how much net migration is being produced by the total number of in- and out-migrants in a given exchange, and can be used to compare the "efficiency" of various exchanges and of population subgroups within those exchanges (Shryock, 1964; Galle and Williams, 1972). It is apparent from the ratios in Table 6 that the migration of professionals and college graduates is highly directed toward metropolitan areas and that the efficiency of this migration has not been substantially diminished during the initial stages of the turnaround. What remains to be seen is whether this selectivity will persist as overall redistribution away from metropolitan areas becomes more widespread.

TABLE 6: Mean Metropolitan Migration Efficiency Ratios computed on the basis of Total Net Migration, Net Migration with Nonmetropolitan Areas and Net Migration with other Metropolitan Areas, for selected population classes, 1955-60 and 1965-70 periods.

SMSA Groupings/ Population Classes [1]	Metropolitan Migration Efficienty Ratios [2] associated with: 1955-60 Net Migration Total (1)	With Nonmet Areas (2)	With other Met Areas (3)	1965-70 Net Migration Total (4)	With Nonmet Areas (5)	With other Met Areas (6)
SMSAs from all Regions (N=31)						
Total						
Mean	+ 6.4	+ 8.5	+ 3.0	+ 6.1	+ 1.5	+ 7.5
(Std Dev)	(21.2)	(23.6)	(23.5)	(17.4)	(20.3)	(18.3)
College Graduates						
Mean	+13.7	+18.8	+11.0	+12.4	+15.9	+10.8
(Std Dev)	(18.9)	(18.2)	(21.0)	(13.4)	(16.6)	(14.6)
Professionals						
Mean	+12.9	+19.7	+ 8.8	+13.9	+19.1	+11.5
(Std Dev)	(15.6)	(16.8)	(18.3)	(13.1)	(17.5)	(14.1)
SMSAs from the North (N=16)						
Total						
Mean	- 8.4	- 6.8	-12.4	- 6.3	-10.5	- 5.4
(Std Dev)	(12.7)	(21.3)	(14.0)	(11.6)	(20.2)	(11.5)
College Graduates						
Mean	+ 6.5	+12.1	+ 3.2	+ 3.3	+ 7.0	+ 1.3
(Std Dev)	(19.7)	(20.6)	(21.7)	(8.0)	(17.5)	(9.3)
Professionals						
Mean	+ 3.5	+10.8	- 1.5	+ 7.4	+13.0	+ 4.3
(Std Dev)	(8.2)	(15.1)	(11.6)	(9.4)	(19.5)	(10.0)
SMSAs from the South and West (N=15)						
Total						
Mean	+22.1	+24.8	+19.5	+19.3	+14.4	+21.2
(Std Dev)	(16.5)	(12.6)	(20.3)	(11.8)	(10.0)	(13.6)
College Graduates						
Mean	+21.4	+26.0	+19.3	+22.0	+25.4	+20.9
(Std Dev)	(15.2)	(12.4)	(17.2)	(11.2)	(8.9)	(12.2)
Professionals						
Mean	+23.0	+29.3	+19.8	+20.9	+25.6	+19.3
(Std Dev)	(15.5)	(12.9)	(18.0)	(13.2)	(12.7)	(13.9)

[1] Total Population pertains to end-of-period whites ages 5 and above; College Graduates and Professionals are defined as in Tables 2 and 4.

[2] The Migration Efficiency Ratio is defined as $((I-O)/(I+O)) \times 100$ where I, and O pertain to the number of in-migrants and outmigrants for the population classes specified.

Sources: Same as Table 1.

4. CONCLUSION

Urban analysts have expressed concern over the potential effects that the "new" migration patterns -- interregional metropolitan redistribution toward the South and West, and the metropolitan-nonmetropolitan "turnaround" -- may be imposing on individual metropolitan areas and, in particular, on the large, older SMSAs in the nation's North. The present paper is intended to provide an overview of the consequences migration streams have been effecting on the white population sizes and compositions of large metropolitan areas in all regions, based on the most recent census data available for this purpose.

In examining the migration consequences for population size, we find similar regional differences in metropolitan redistribution to be operating in both the late 1950s and late 1960s. Most SMSAs in the North experienced modest net out-migration of their white populations in each of the two migration periods. In contrast, virtually all SMSAs in the South and West registered net in-migration of whites. The magnitudes of these gains were, on the average, larger than Northern metropolitan losses, however, there existed wide variation both across SMSAs and over time. In most of these comparisons, we find differences in the sizes of in-migration rather than out-migration streams to be most responsible for differences in net migration levels.

Because our migration stream data could be disaggregated by metropolitan or nonmetropolitan origins and destinations, we were able to isolate the net migration each SMSA experienced in its exchange with nonmetropolitan areas, from that which it experienced with other metropolitan areas. Our results from this analysis indicate that the "turnaround" was evident among Northern metropolitan areas in both the late 1950s and

late 1960s. During each of these periods, most Northern SMSAs registered white net out-movement to nonmetropolitan areas although at increased levels for the 1965-70 interval. Southern and Western SMSAs, standing in contrast, experienced levels of net in-migration vis. nonmetropolitan areas over the same observation intervals. These in-migration levels were fairly significant, however, they tended to decline with the 1965-70 period. The modal Northern SMSA, therefore, incurred net out-migration to both nonmetropolitan and metropolitan areas for each period of observation, while the modal sunbelt SMSA registered somewhat higher levels of net in-migration in its exchange with these two sources. Although SMSAs in each region came to rely less on the metropolitan-nonmetropolitan exchange as a source of growth in the late 1960s, the declining importance of this exchange should pose more severe consequences for Northern SMSAs which also experience out-migration via the intermetropolitan exchange.

In examining the migration consequences for the status compositions of SMSAs, we employed Taeuber and Taeuber's (1964) "circulation of elites" model as a working hypothesis. According to the model, metropolitan areas which sustain losses or gains should see these losses or gains magnified among their most educated, highly skilled subgroups. This hypothesis was rejected as a model of the entire redistribution process, but was supported as a characterization of the exchange SMSAs experience with other metropolitan areas. SMSAs' exchanges with nonmetropolitan areas conformed more closely to the traditional rural-to-urban model of status selectivity through which both growing and declining metropolitan areas experience net gains in their most select population subgroups. Since the status selectivity associated with total net migration reflects both of these processes, growing, sunbelt SMSAs tend to experience disproportionate gains

among their college educated and professional populations. Yet Northern, "net out-migration" SMSAs do not experience disproportionate losses from these populations because the net losses they incur to other metropolitan areas are recouped from their exchanges with nonmetropolitan areas.

According to our analysis, large Northern SMSAs have been experiencing the "new" migration patterns since the late 1950s. They have incurred net out-movements of whites to both metropolitan and nonmetropolitan areas, but due to the nonmetropolitan exchange have managed to retain a greater number of educated, highly skilled residents. Although sunbelt SMSAs had not yet sustained losses to their nonmetropolitan environs during this period, they did appear to gain substantially from the interregional metropolitan redistribution with respect to both their total and upper status populations.

Post-1970 Current Population Survey migration measures tell us that movement to metropolitan areas in the sunbelt and the metropolitan-nonmetropolitan "turnaround" have increased in scope since our analysis period. Data from these surveys, (assembled in Table 7), indicate that Northern metropolitan areas in the aggregate are suffering greater population losses as a result of both of these trends, while Southern SMSA gains accruing from the interregional metropolitan exchange are being eroded by net migration losses to nonmetropolitan areas. Unfortunately, we must await the results of the 1980 census in order to examine the continuing consequences of these redistribution patterns for individual metropolitan areas.

TABLE 7: Contributions to the End-of-period White Populations of Aggregate Metropolitan Areas in the North and Aggregate Metropolitan Areas in the South and West that can be attributed to: Migration between these Regional Metropolitan Aggregates, and Migration with Nonmetropolitan Areas, 1965-70, 1970-75, and 1975-77 periods.[1]

Regional Metropolitan Aggregate[2] / Period	Percent Change in End-of-Period Population that can be attributed to:[3] Migration With Other Regional Metropolitan Aggregate			Migration with Non-Metropolitan Areas			Total Migration		
	In (1)	Out (2)	Net (3)	In (4)	Out (5)	Net (6)	In (7)	Out (8)	Net (9)
Aggregate SMSAs in NORTH									
1965-70	+1.66	-3.14	-1.48	+3.34	-3.93	- .59	+5.00	-7.06	-2.07
1970-75	+1.58	-3.58	-2.00	+2.74	-4.98	-2.24	+4.32	-8.56	-4.24
1975-77	+ .96	-1.63	- .67	+2.04	-3.02	- .98	+2.99	-4.65	-1.66
Aggregate SMSAs in SOUTH and WEST									
1965-70	+3.84	-2.04	+1.80	+6.03	-5.11	+ .92	+9.87	-7.15	+2.72
1970-75	+4.56	-2.01	2.55	+5.17	-6.95	-1.78	+9.73	-8.96	+ .77
1975-77	+1.92	-1.13	+ .79	+4.44	-4.64	- .20	+6.36	-5.77	+ .59

[1] Pertains to end-of-period nonBlack population ages 5 and above for the 1965-70 period, end-of-period nonBlack population ages 5 and above for the 1970-75 period, and end-of-period White population ages 2 and above for the 1975-77 period.

[2] "Aggregate Metropolitan Areas" in the North pertain to combined metropolitan areas of all sizes in the Northeast and North Central census regions; "Aggregate Metropolitan Areas in the South and West" pertain to combined metropolitan areas of all sizes in the South and West census regions.

[3] Percent Change relative end-of-period populations that would have resulted if no in- or out-migration to the regional metropolitan aggregate had taken place.

Sources: U.S. Bureau of the Census, 1973. Census of Population 1970 PC(2)-2B.
U.S. Bureau of the Census, 1975. Current Population Reports P-20, No. 285.
U.S. Bureau of the Census, 1978. Current Population Reports P-20, No. 320.

NOTES

[1]Various Current Population Reports publications provide postcensal information on net migration for individual metropolitan areas (see U.S. Bureau of the Census, 1977) and gross migration streams among regions (see U.S. Bureau of the Census, 1975, 1978). However, none of these sources provide information on the characteristics of gross migrants for individual metropolitan areas.

[2]In pooling observations of the 31 SMSAs over 2 periods (62 observations), we find that 27 experienced a net out-migration in their exchange with other metropolitan areas, and 35 experienced a net in-migration. Of the 27 net out-migration SMSAs, 20 registered a net out-migration among their college graduate populations, and 17 registered a net out-migration among their professional populations. All of the net in-migration SMSAs also experienced net in-migrations among their college graduate and professional populations.

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APPENDIX TABLE A
Contributions to End-of-period White Population ages 5 and above[1]
that can be attributed to In, Out, and Net Migration
for 1955-60 and 1965-70 periods, 31 SMSAs.
(TEXT TABLE 1 USING UNALLOCATED TABULATIONS)

SMSAs	End-of-period Population in the absence of Migration (in 1000s)		Percent Change in End-of-period Population that can be attributed to:[2] In Migration		Out Migration		Net Migration	
	1955-60 (1)	1965-70 (2)	1955-60 (3)	1965-70 (4)	1955-60 (5)	1965-70 (6)	1955-60 (7)	1965-70 (8)
NORTH								
New York	8522	9788	+ 3.40	+ 3.50	- 7.88	- 9.32	- 4.47	- 5.83
Chicago	4644	5114	+ 8.20	+ 8.11	-10.30	-11.97	- 2.10	- 3.86
Philadelphia	3197	3473	+ 7.64	+ 8.32	- 7.63	- 9.22	+ 0.01	- 0.91
Detroit	2877	3101	+ 5.99	+ 7.30	-10.64	-10.89	- 4.65	- 3.59
Boston	2225	2321	+ 7.57	+ 9.75	-10.25	-11.80	- 2.68	- 2.05
Pittsburgh	2039	2059	+ 5.21	+ 6.42	- 8.40	- 9.74	- 3.19	- 3.32
St. Louis	1548	1722	+ 9.60	+10.40	-11.42	-12.09	- 1.82	- 1.69
Cleveland	1391	1563	+ 9.12	+ 9.04	-13.04	-12.63	- 3.91	- 3.58
Newark	1329	1367	+10.66	+11.94	-14.48	-16.52	- 3.82	- 4.58
Minneapolis*	1206	1499	+14.09	+14.38	-11.24	-13.09	+ 2.85	+ 1.28
Milwaukee	968	1161	+10.34	+ 8.32	- 9.89	-11.86	+ 0.45	- 3.54
Cincinnati	836	1075	+10.33	+10.47	-13.42	-11.81	- 3.09	- 1.34
Paterson*	982	1153	+14.56	+12.33	-12.86	-14.53	+ 1.70	- 2.20
Buffalo	1081	1130	+ 6.42	+ 5.90	- 8.98	- 9.68	- 2.56	- 3.78
Kansas City	805	953	+14.91	+15.61	-16.59	-16.37	- 1.67	- 0.76
Indianapolis	523	639	+14.96	+13.23	-17.23	-13.85	- 2.27	- 0.62
SOUTH AND WEST								
Los Angeles*	4863	5494	+19.62	+12.47	-11.96	-16.26	+ 7.66	- 3.79
San Francisco*	2048	2367	+18.52	+16.39	-16.51	-17.07	+ 2.01	- 0.68
Washington, D.C.	1188	1667	+24.09	+25.67	-19.77	-20.78	+ 4.32	+ 4.90
Baltimore	1171	1368	+ 9.60	+10.90	-10.27	-11.31	- 0.67	- 0.40
Houston	818	1252	+19.11	+22.91	-15.68	-14.28	+ 3.43	+ 8.63
Dallas	759	1020	+21.41	+25.60	-15.98	-17.07	+ 5.43	+ 8.53
Atlanta	645	846	+20.49	+25.42	-15.77	-17.95	+ 4.71	+ 7.47
San Diego	675	967	+46.23	+34.65	-24.18	-22.69	+22.05	+11.95
Miami	586	809	+34.14	+23.35	-19.50	-18.89	+14.64	+ 4.46
Denver	689	948	+28.35	+25.29	-18.29	-19.55	+10.06	+ 5.74
San Bernadino*	553	861	+38.97	+29.26	-20.98	-22.49	+17.98	+ 6.77
San Jose	391	808	+50.66	+28.27	-18.30	-19.48	+32.36	+ 8.79
New Orleans	520	621	+12.28	+12.71	-12.71	-15.33	- 0.43	- 2.62
Tampa*	444	680	+50.57	+32.16	-15.77	-16.46	+34.80	+15.71
Portland	696	787	+16.08	+19.40	-15.18	-13.91	+ 0.90	+ 5.49

Sources: U.S. Bureau of the Census, 1963. Census of Population 1960 PC(2)-2C.
U.S. Bureau of the Census, 1973. Census of Population 1970 PC(2)-2C.

* Indicates largest city of multiple SMSA.

[1] In this and subsequent tables, data for the 1955-60 period refer to the white population while data for the 1965-70 period refer to the nonBlack population.

[2] These measures reflect percent changes relative to the end-of-period population that would have resulted if no in or out migration had taken place [columns (1) and (2)].

APPENDIX TABLE B
Contributions to End-of-period White Population ages 5 and above that can be attributed to In, Out, and Net Migration with Nonmetropolitan Areas and to Net Migration with other Metropolitan Areas for 1955-60 and 1965-70 periods, 31 SMSAs.
(TEXT TABLE 3 USING UNALLOCATED TABULATIONS)

SMSAs	Percent Change in End-of-period Population that can be attributed to: [1] In Migration from Non-Met Areas		Out Migration to Non-Met Areas		Net Migration with Non-Met Areas		Net Migration with Other Met Areas	
	1955-60 (1)	1965-70 (2)	1955-60 (3)	1965-70 (4)	1955-60 (5)	1965-70 (6)	1955-60 (7)	1965-70 (8)
NORTH								
New York	+ 0.87	+ 0.80	-2.06	-2.59	-1.19	-1.78	-3.28	-4.05
Chicago	+ 3.51	+ 2.43	-3.26	-3.88	+ 0.25	-1.45	-2.35	-2.40
Philadelphia	+ 2.20	+ 1.99	-2.08	-2.32	+ 0.12	-0.33	-0.11	-0.57
Detroit	+ 2.44	+ 2.28	-3.90	-3.94	-1.46	-1.66	-3.20	-1.92
Boston	+ 2.49	+ 2.88	-3.22	-3.60	-0.73	-0.72	-1.95	-1.33
Pittsburgh	+ 2.17	+ 2.26	-3.01	-3.12	-0.83	-0.87	-2.36	-2.46
St. Louis	+ 5.21	+ 4.36	-5.02	-4.93	+ 0.18	-0.57	-2.01	-1.12
Cleveland	+ 3.69	+ 2.30	-4.63	-3.11	-0.94	-0.81	-2.97	-2.77
Newark	+ 2.31	+ 2.56	-6.91	-7.35	-4.60	-4.79	+0.78	+ 0.21
Minneapolis*	+ 8.89	+ 7.81	-5.03	-6.04	+ 3.86	+ 1.77	-1.01	-0.48
Milwaukee	+ 5.37	+ 3.09	-3.96	-4.14	+ 1.40	-1.06	-0.95	-2.48
Cincinnati	+ 5.12	3.40	-6.04	-3.44	-0.92	-0.04	-2.17	-1.30
Paterson*	+ 1.27	+ 1.27	-3.40	-4.23	-2.13	-2.95	+3.83	+ 0.75
Buffalo	+ 2.99	+ 1.75	-2.98	-2.84	+ 0.02	-1.10	-2.58	-2.69
Kansas City	+ 8.42	+ 7.30	-7.58	-7.11	+ 0.84	+0.20	-2.51	-0.95
Indianapolis	+ 8.71	+ 5.75	-9.29	-5.10	-0.59	+0.64	-1.68	-1.26
SOUTH AND WEST								
Los Angeles*	+ 5.75	+ 2.28	-3.41	-2.80	+ 2.34	-0.52	+ 5.32	-3.27
San Francisco*	+ 6.14	+ 3.21	-5.36	-3.75	+ 0.79	-0.54	+ 1.22	-0.13
Washington,D.C.	+ 8.80	+ 7.22	-6.33	-6.39	+ 2.47	+0.83	+ 1.85	+ 4.07
Baltimore	+ 3.85	+ 2.83	-3.33	-3.18	+ 0.52	-0.35	-1.18	-0.05
Houston	+ 8.66	+ 7.24	-6.18	-5.09	+ 2.48	+2.15	+ 0.95	+ 6.48
Dallas	+ 9.31	+ 7.83	-5.23	-5.38	+ 4.08	+2.45	+ 1.35	+ 6.08
Atlanta	+10.34	+ 9.30	-7.03	-8.66	+ 3.31	+0.65	+ 1.40	+ 6.82
San Diego	+14.56	+ 7.59	-6.69	-5.04	+ 7.87	+2.50	+14.18	+ 9.40
Miami	+ 7.31	+ 4.18	-5.72	-4.50	+ 1.59	-0.32	+13.05	+ 4.77
Denver	+13.68	+ 9.95	-7.01	-7.44	+ 6.67	+2.51	+ 3.38	+ 3.23
San Bernadino*	+10.68	+ 5.42	-5.85	-5.12	+ 4.83	+0.31	+13.15	+ 6.46
San Jose	+13.24	+ 5.08	-5.70	-4.66	+ 7.54	+0.42	+24.82	+ 8.37
New Orleans	+ 5.52	+ 4.65	-5.68	-5.02	- 0.16	-0.37	-0.27	-2.25
Tampa*	+17.26	+ 9.54	-7.10	-6.37	+10.16	+3.17	+24.64	+12.54
Portland	+ 9.37	+ 8.12	-6.96	-5.67	+ 2.42	+2.45	-1.51	+ 3.03

* Indicates largest city of multiple SMSA.

[1] These measures reflect percent changes relative to the end-of-period population that would have resulted if no in or out migration had taken place [columns (1) and (2) in Table 1].

Sources: Same as Table 1.